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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/072,272

02/06/2002

H. Andrew Strong

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1974

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02/12/2004

EXAMINER

SHARAREH, SHAHNAM J

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ART UNIT

PAPER NUMBER

1617

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center">Office Action Summary</p>	<p>Application No.</p> <p align="center">10/072,272</p>	<p>Applicant(s)</p> <p align="center">STRONG ET AL.</p>	
	<p>Examiner</p> <p align="center">Shahnam Sharareh</p>	<p>Art Unit</p> <p align="center">1617</p>	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 2/6/2002, 11/12/2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Applicant's election of BPD-MA as the photosensitizer filed on November 12, 2003 is acknowledged. Accordingly, a search is first directed to such species before the entire genus is examined. Claims 1-19 read on the elected species and are hereby under consideration.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 1-19 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "small lesion," "poor visual acuity," in claim 1, and "the best corrected visual acuity" in claim 2 appear relative in nature which render the claims indefinite. The term "small lesion," "poor visual acuity," and "the best" are not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably appraised of the scope of the invention.

The recitations of the language "CNV" in claim 6 and "PDT" in claim 16 are ambiguous. They appear to lack antecedent basis.

Claims 4-5 appear to account for a size limitation without setting forth the size unit. It is not clear what is meant by "a size less than about 4-5 disc areas." Is that 4-5

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times the normal disc areas? 4-5 times the lesion size? or 4-5 microns? Clarification is requested.

Claim Objections

Claim 1 are objected to because of the following informalities: the recitation of "occult a choroidal neovascular lesion" appears to contain a grammatical error. Is the choroidal neovascular lesion occult or is the condition an occult choroidal neovascular lesion. Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 4-12, 14-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Levy et al US Patent 5,798,349 ("Levy").

The instant claims are directed to methods of treating choroidal neovascular lesion ("CNV") comprising administering photodynamic therapy.

Levy discloses treating choroidal neovascular lesions by photodynamic therapy comprising administering green porphyrin such as BPD-MA to patients in need thereof. (see abstract; col 3, lines 25-50). Levy discloses small lesions of at 2 or 3 which is construed to meet the limitations of the instant claims 4-5. (see table 7, col 13). Levy also discloses administration of green porphyrins at the doses of 0.1-20 mg/kg which falls within the ranges instantly claimed. Note that the attached Drug facts and

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comparison provides a methodology for measuring body surface area ("BSA") in m². Accordingly, a 70 kg, 180 cm individual would have roughly a BSA of 1.9 m². Thus, a 0.21 mg/kg dosing of Levy is the same as 7.8 mg/m² dosing of the instant method. Therefore, Levy anticipates the dosing limitations of the instant claims.

Finally, Levy teaches administering liposomal forms of BPD-MA, visible light spectra of about 50-100 Joules/cm², and does of about 0.1-20 mg/kg which meet the limitation of the instant claims 14-19. (see examples 3-5; col 4, lines 8-16). Thus, Levy anticipates the instant claims.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Levy.

Levy's teachings are discussed above. Levy fails to specifically disclose the visual acuity of subject at baseline to be less than 65 letters and further to explicitly couple a ligand to his BPD-MA.

However, Levy teaches that green porphyrin may be coupled with a target-specific ligand such as antibody or immunologically active fragment (see col 3, lines 60-66).

Thus, first it would have been obvious to one of ordinary skill in the art at the time of invention to find the visual acuity of the subjects employed by Levy by routine experimentation and further ascertain the category most benefited by such method. Second, it would have been obvious to one of ordinary skill in the art at the time of invention to couple a specific ligand to the BPD-MA of Levy, because as suggested by Levy, himself, the ordinary skill in the art would have had a reasonable expectation of success in improving the outcome of the photodynamic therapy.

Conclusion

No claims are allowed.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shahnam Sharareh whose telephone number is 703-306-5400. The examiner can normally be reached on 8:30 am - 6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sreenivasan Padmanabhan, PhD can be reached on 703-308-1877. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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